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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,175	09/26/2003	Steve Pemberton	3090-1	9862

7590 02/23/2005
JOHN LEZDEY
SUITE 302
4625 EAST BAY DRIVE
CLEARWATER, FL 33764

EXAMINER

KERSHTEYN, IGOR

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/672,175

Applicant(s)

PEMBERTON, STEVE

Examiner

Igor Kershteyn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the drain port 42 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The abstract of the disclosure is objected to because it recites the legal term "means". Correction is required. See MPEP § 608.01(b).

Claim Objections

Claims 1, 15-17 are objected to because of the following informalities:

Claim 1 recites the limitation "said top portion" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "the impeller means" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "said discharge opening" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "said impeller means" in line 2. There is insufficient antecedent basis for this limitation in the claim.

In claim 17, line 9, "mean" should be --means--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3, 6, and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, in line 5, recites the limitation "a sloped impeller" which is indefinite because it is confusing either it is a new limitation or the limitation recited in claim 1, line 4.

Claim 3, in line 1, recites the limitation "a drive shaft" which is indefinite because it is confusing either it is a new limitation or the limitation recited in claim 1 in paragraph c).

Claim 6, in line 1, recites the limitation "a drive shaft" which is indefinite because it is confusing either it is a new limitation or the limitation recited in claim 1 in paragraph c).

Claims 2, 4, 5, and 7-12 are indefinite by virtue of their dependency on respective claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 10, and 11, as far as they are definite, are rejected under 35

U.S.C. 102(b) as being anticipated by Ivens (632,572).

In figures 1-3, Ivens teaches a centrifugal pump apparatus comprising: a) a housing 2 having a front wall and a rear wall (not numbered), a discharge outlet opening 2b in a top portion and opposing inlet means 2d on opposite sides of the housing 2 which creates equal pressure from both sides on an impeller 6, b) a sloped impeller 6 within and in spaced relationship with said housing 2, said impeller 6 having outwardly extending blades (not numbered) along its periphery for movement of flowable material outward to the discharge outlet 2b, c) a drive shaft 9 mounted in said housing and connectable to a motor means, said impeller 6 and housing 2 cooperating to discharge flowable material through said discharge outlet opening 2b in response to rotation of said impeller 6.

Note. In claim 1 the language "connectable" makes optional but does not limit the claims 1 to the structure of the "motor means".

See MPEP 2106 II C REVIEW THE CLAIMS.

Claims 1-3, 9, 11, as far as they are definite, and 13, 14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Salzer (885,867).

In figures 1 and 2, Salzer teaches a centrifugal pump apparatus comprising: a) a housing 17 having a front wall and a rear wall (not numbered), a discharge outlet opening 19 in a top portion and opposing inlet means 22,23 on opposite sides of the

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housing 17 which creates equal pressure from both sides on an impeller 9, b) a sloped impeller 9 within and in spaced relationship with said housing 17, said impeller 9 having outwardly extending blades 9' along its periphery for movement of flowable material outward to the discharge outlet 19, c) a drive shaft 1 mounted in said housing and connectable to a motor means, said impeller 9 and housing 17 cooperating to discharge flowable material through said discharge outlet opening 19 in response to rotation of said impeller 9.

Claims 1-3, and 11, as far as they are definite, and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Godichon (5,980,199).

In figures 2, 3, and 5, Godichon teaches a centrifugal pump apparatus 1 comprising: a) a housing 13 having a front wall and a rear wall (not numbered), a discharge outlet opening 20 in a top portion and opposing inlet means 2,3 on opposite sides of the housing 13 which creates equal pressure from both sides on an impeller 4, b) a sloped impeller 4 within and in spaced relationship with said housing 13, said impeller 4 having outwardly extending blades 11 along its periphery for movement of flowable material outward to the discharge outlet 20, c) a drive shaft 5 mounted in said housing and connectable to a motor means, said impeller 4 and housing 13 cooperating to discharge flowable material through said discharge outlet opening 20 in response to rotation of said impeller 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 8 and 10, as far as they are definite, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ericson et al. (4,688,987) in view of Ivens (632,572).

Ericson et al., in figures 1-3, teach a centrifugal pump apparatus 10 comprising:

a) a housing 18 having a front wall and a rear wall (not numbered), a discharge outlet opening 33 in a top portion and opposing inlet means 30,31 on opposite sides of the housing 18 which creates equal pressure from both sides on an impeller 17, b) the impeller 17 within and in spaced relationship with said housing 18, said impeller 17 having outwardly extending blades 43 along its periphery for movement of flowable material outward to the discharge outlet 33, c) a drive shaft 11 mounted in said housing 17 and connectable to a motor means 13, said impeller 17 and housing 18 cooperating to discharge flowable material through said discharge outlet opening 33 in response to rotation of said impeller 17, wherein the drive shaft includes the propeller 15, and wherein the impeller 17 comprises material.

Ericson et al. don't teach the sloped impeller.

Ivens, in figure 3, teaches a centrifugal pump apparatus comprising: a) a housing 2 having a front wall and a rear wall (not numbered), a discharge outlet opening 2b in a

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top portion and opposing inlet means 2d on opposite sides of the housing 2 which creates equal pressure from both sides on an impeller 6, b) a sloped impeller 6 within and in spaced relationship with said housing 2, said impeller 6 having outwardly extending blades (not numbered) along its periphery for movement of flowable material outward to the discharge outlet 2b, c) a drive shaft 9 mounted in said housing and connectable to a motor means, said impeller 6 and housing 2 cooperating to discharge flowable material through said discharge outlet opening 2b in response to rotation of said impeller 6.

Since Ericson et al. and Ivens are analogous art because they are from the same field of endeavor, that is the centrifugal pump art, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the pump of Ericson et al. with the sloped impeller as taught by Ivens for the purpose of improving volumetric efficiency.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ivens (632,572) in view of Applicant's admitted prior art.

Ivens teaches all the claimed subject matter except that he doesn't teach the impeller has a slope on both sides of about 30 to 45 degrees.

Applicant, in the specification, in page 8, lines 2-3, teaches "A typical pump having a water discharge capacity to 15 gallons per second is provided with an 8 inch impeller having a 30 degree slope."

Since Ivens and Applicant's admitted prior art are analogous art because they are from the same field of endeavor, that is the centrifugal pump art and because Ivens does not explicitly disclose the degree of slope of his impeller, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the impeller of Ivens with the 30 degree slope as taught by Applicant's admitted prior art for the purpose of adapting the impeller for specific dimensions dictated by the pump displacement.

Claims 6, 7, 12, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eberhardt (4,786,239) in view of Salzer (885,867).

Eberhardt, in figure 1, teaches a fluid immersible discharge pump comprising a hydraulic motor 16, a centrifugal pump 20 in combination with a drive shaft hydraulic motor 64, a housing (not numbered) associated with said motor 16 and means 14 separate from said motor 16 for activating said motor 16 when said housing is immersed in a fluid.

Eberhardt doesn't teach a housing having a front wall and a rear wall a discharge outlet opening in a top portion and opposing inlet means on opposite sides of the housing which creates equal pressure from both sides on an impeller, a sloped impeller within and in spaced relationship with said housing, said impeller having outwardly extending blades along its periphery for movement of flowable material outward to the discharge outlet, a drive shaft 1 mounted in said housing and connectable to a motor

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means, said impeller and housing cooperating to discharge flowable material through said discharge outlet opening in response to rotation of said impeller.

Salzer, in figures 1 and 2, teaches a centrifugal pump apparatus comprising: a) a housing 17 having a front wall and a rear wall (not numbered), a discharge outlet opening 19 in a top portion and opposing inlet means 22,23 on opposite sides of the housing 17 which creates equal pressure from both sides on an impeller 9, b) a sloped impeller 9 within and in spaced relationship with said housing 17, said impeller 9 having outwardly extending blades 9' along its periphery for movement of flowable material outward to the discharge outlet 19, c) a drive shaft 1 mounted in said housing and connectable to a motor means, said impeller 9 and housing 17 cooperating to discharge flowable material through said discharge outlet opening 19 in response to rotation of said impeller 9.

Since Eberhardt and Salzer are analogous art because they are from the same field of endeavor, that is the centrifugal pump art, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the centrifugal pump of Eberhardt with the a housing having a front wall and a rear wall a discharge outlet opening in a top portion and opposing inlet means on opposite sides of the housing which creates equal pressure from both sides on an impeller, a sloped impeller within and in spaced relationship with said housing, said impeller having outwardly extending blades along its periphery for movement of flowable material outward to the discharge outlet, a drive shaft 1 mounted in said housing and connectable to a motor means, said impeller and housing cooperating to discharge

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flowable material through said discharge outlet opening in response to rotation of said impeller as taught by Salzer for the purpose of providing an immersible self-priming pump having an increased displacement in a compact envelope.

Prior Art

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consist of five patents.

Ross (3,160,107) is cited to show a centrifugal pump having plural flow paths towards each other and common exhaust and split housing.

Fisher (3,246,605) is cited to show a centrifugal pump having plural flow paths towards each other and common exhaust but fails to show a sloped impeller.

Onal (3,935,833) is cited to show a centrifugal pump having plural flow paths towards each other and common exhaust and split housing.

Lipe et al. (4,247,250) is cited to show a centrifugal pump having plural flow paths towards each other and common exhaust and split housing.

Dernedde et al. (4,518,311) is cited to show a centrifugal pump having plural flow paths towards each other and common exhaust and split housing.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kershteyn whose telephone number is

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(571)272-4817. The examiner can be reached on Monday-Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached on **(571)272-4820**. The fax number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308 0861.

IK
February 16, 2005

A handwritten signature in black ink, appearing to read 'Igor Kershteyn', is written over a horizontal line.

Igor Kershteyn
Patent examiner.
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